

Amendments to the Claims:

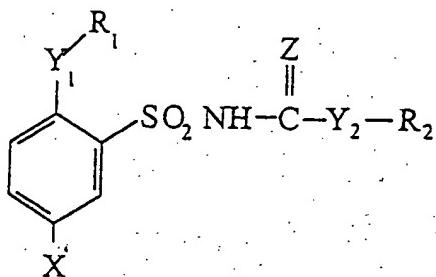
The listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

Claim 1—22 (cancelled)

Claim 23 (new): Benzene-sulphonamide derivatives having the formula (I):

(I)



in which:

X represents a nitro, cyano, or halogen group;

Y₁ represents a secondary or tertiary amino group, or a sulphur;

Y₂ represents a NH group, or a nitrogen atom in a saturated or unsaturated heterocyclic group having 5 to 7 ring members;

Z represents oxygen, sulphur, -N-CN or -CH-NO₂; and

R₁ and R₂, which can be identical or different, represent each independently a saturated or unsaturated radio-labeled linear or branched alkyl group with 2 to 12 carbon atoms, a saturated or unsaturated radio-labeled alicyclic group with 3 to 12 carbon atoms, an aryl group substituted or not by one or several alkyl groups in C₁ – C₄, nitro, cyano, trifluoromethyl, carboxy and halogen groups, or an arylalkyl group

or R₁ and Y₁, and/or, R₂ and Y₂ form a saturated or unsaturated heterocyclic group having 5 to 7 ring members of which at least one is oxygen or nitrogen

with the exception of compounds for which X is a nitro group, Y₁ represents a secondary amino group (-NH-), Y₂ represents a NH group, Z represents an oxygen, R₂

represents an isopropyl and R₁ represents an element selected from a group consisting of m-tolyl, phenyl and cyclootyl, and with the exception of N-[(2-cyclootylamino-5-cyanobenzene)sulfonyl] N'-isopropyl urea.

Claim 24 (new): The derivative according to claim 23, characterized in that X is an element selected from a group consisting of nitro, cyano, bromo and iodine group.

Claim 25 (new): The derivative according to claim 23, characterized in that Y₁ represents a NH group and Y₂ represents a NH group or an oxygen atom.

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Claim 26 (new): The derivative according to claim 23, characterized in that R₁ and R₂ represent each independently an ethyl, butyl, tert-butyl, propyl, isopropyl, pentyl, hexyl, heptyl, octyl, decyl, amyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclooctyl, cyclododecyl, 2-cyclohexenyl, m-tolyl, o-tolyl, p-tolyl, phenyl, allyl, adamantly, norbornyl, 3-carboxyphenyl, 2,3-dimethylphenyl, 2,4-dimethylphenyl, 2,5-dimethylphenyl, 2,6-dimethylphenyl, 3,4-dimethylphenyl, 3,5-dimethylphenyl, 2,4,6-trimethylphenyl, furfuryl, benzyl or 1-phenylethyl group.

Claim 27 (new): The derivative according to claim 23, characterized in that R₂ and Y₂ form a homopiperidinyl group.

Claim 28 (new): The derivative according to claim 23, characterized in that R₁ and Y₁ form a morpholinyl or homopiperidinyl group.

Claim 29 (new): The derivative according to claim 23, characterized in that it is constituted by a salt selected from a group consisting of sodium salts, the potassium salts or organic acid salts.

Claim 30 (new): The derivative according to claim 29, characterized in that it is chosen in a group having:

N-[(2-cyclohexylamino-5-nitrobenzene)sulfonyl]N'-tert-butyl urea,

N-cyano-N'-[(2-cyclohexylamino-5-nitrobenzene)sulfonyl]]homopiperidinoamidine,
N-[(2-cyclohexylamino-5-nitrobenzene)sulfonyl]N'-cyclohexyl thiourea, and
N-[(cyclohexen-2-yl-5-iodobenzene)sulfonyl]N'-pentyl urea.

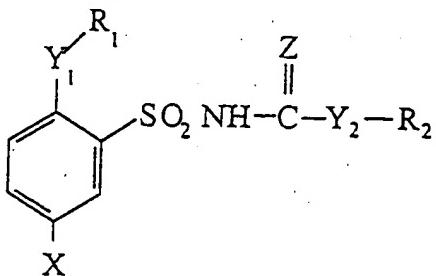
Claim 31 (new): A pharmaceutical composition, characterized in that it includes the benzene sulphonamide derivative according to claim 23 in mixture with an acceptable pharmaceutical excipient.

Claim 32 (new): A method for producing a medication for treatment of an illness involving a thromboxan A2, including cardio-vascular and blood, pulmonary, reproduction and renal diseases, which comprises utilizing the derivatives according to claim 23.

Claim 33 (new): A method for binding to a thromboxan A2 receptor, which comprises utilizing the derivative according to claim 23.

Claim 34 (new): Benzene-sulphonamide derivatives having the formula (I):

(I)



in which:

X represents a nitro, cyano, or radio-labeled halogen group;

Y_1 represents a secondary or tertiary amino group, or a sulphur;

Y_2 represents a NH group, or a nitrogen atom in a saturated or unsaturated heterocyclic group having 5 to 7 ring members;

Z represents oxygen, sulphur, $-\text{N}-\text{CN}$ or $-\text{CH}-\text{NO}_2$; and

R_1 and R_2 , which can be identical or different, represent each independently a saturated or unsaturated radio-labeled linear or branched alkyl group with 2 to 12 carbon

atoms, a saturated or unsaturated radio-labeled alicyclic group with 3 to 12 carbon atoms, an aryl group substituted or not by one or several alkyl groups in C₁–C₄, nitro, cyano, trifluoromethyl, carboxy and halogen groups, or an arylalkyl group

or R₁ and Y₁, and/or, R₂ and Y₂ form a saturated or unsaturated heterocyclic group having 5 to 7 ring members of which at least one is oxygen or nitrogen

with the exception of compounds for which X is a nitro group, Y₁ represents a secondary amino group (-NH-), Y₂ represents a NH group, Z represents an oxygen, R₂ represents an isopropyl and R₁ represents an element selected from a group consisting of m-tolyl, phenyl and cyclootyl, and with the exception of N-[(2-cyclootylamino-5-cyanobenzene)sulfonyl] N'-isopropyl urea.

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Claim 35 (new): The derivative according to claim 34, characterized in that X is an element selected from a group consisting of nitro, cyano, bromo and iodine group.

Claim 36 (new): The derivative according to claim 34, characterized in that Y₁ represents a NH group and Y₂ represents a NH group or an oxygen atom.

Claim 37 (new): The derivative according to claim 34, characterized in that R₁ and R₂ represent each independently an ethyl, butyl, tert-butyl, propyl, isopropyl, pentyl, hexyl, heptyl, octyl, decyl, amyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclooctyl, cyclododecyl, 2-cyclohexenyl, m-tolyl, o-tolyl, p-tolyl, phenyl, allyl, adamantly, norbornyl, 3-carboxyphenyl, 2,3-dimethylphenyl, 2,4-dimethylphenyl, 2,5-dimethylphenyl, 2,6-dimethylphenyl, 3,4-dimethylphenyl, 3,5-dimethylphenyl, 2,4,6-trimethylphenyl, furfuryl, benzyl or 1-phenylethyl group.

Claim 38 (new): The derivative according to claim 34, characterized in that R₁ and Y₂ form a homopiperidinyl group.

Claim 39 (new): The derivative according to claim 34, characterized in that R₁ and Y₁ form a morpholinyl or homopiperidinyl group.

Claim 40 (new): The derivative according to claim 34, characterized in that it is constituted by a salt selected from a group consisting of sodium salts, the potassium salts or organic acid salts.

Claim 41 (new): The derivative according to claim 40, characterized in that it is chosen in a group having:

N-[(2-cyclohexylamino-5-nitrobenzene)sulfonyl]N'-tert-butyl urea,
N-cyano-N'-[(2-cyclohexylamino-5-nitrobenzene)sulfonyl]homopiperidinoamidine,
N-[(2-cyclohexylamino-5-nitrobenzene)sulfonyl]N'-cyclohexyl thiourea, and
N-[(cyclohexen-2-yl-5-iodobenzene)sulfonyl]N'-pentyl urea.

Claim 42 (new): A pharmaceutical composition, characterized in that it includes the benzene sulphonamide derivative according to claim 34 in mixture with an acceptable pharmaceutical excipient.

Claim 43 (new): A method for producing a medication for treatment of an illness involving a thromboxan A₂, including cardio-vascular and blood, pulmonary, reproduction and renal diseases, which comprises utilizing the derivatives according to claim 34.

Claim 44 (new): A method for binding to a thromboxan A₂ receptor, which comprises utilizing the radio-labeled derivative according to claim 34.